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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,736	07/15/2003	Hiroshi Shinoda	NIT-383	7263

7590 05/06/2005  
Mattingly, Stanger & Malur, P.C.  
Suite 370  
1800 Diagonal Road  
Alexandria, VA 22314

EXAMINER

ALSOMIRI, ISAM A

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

Application No.

10/618,736

Applicant(s)

SHINODA ET AL.

Examiner

Isam Alsomiri

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/12/04.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 14 July 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 100704
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## DETAILED ACTION

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel J. Stanger Reg. No. 32,846 on April 11, 2005.

The application has been amended as follows:

#### **Claims 1-2 and 10-12 are amended as follows:**

1. (Currently amended) An automotive radar comprising:
  - a transmitting antenna and receiving antennas arranged on the a four-sided top face of a grounding conductor plate, and
  - a radar transmitter/receiver apparatus for supplying a signal to the transmitting antenna and detecting the azimuth of an obstacle from signals of a wave reflected by the obstacle and received by the receiving antennas,
  - wherein a diffracted wave prevention structure is provided at edges two of the four sides of the top face of said grounding conductor plate at least in part, the two of the four sides extending substantially parallel to an imaginary boundary line between the transmitting antenna and the receiving antenna, and said diffracted wave prevention structure being arranged to prevent a diffracted wave being generated through radiation

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from the transmitting antenna, reflection by the obstacle and diffraction at the edges and then being received by the receiving antenna.

2. (Currently amended) The automotive radar according to claim 1, wherein said diffracted wave prevention structure comprises a radio wave absorber covering said ~~top face edges~~ two of the four sides at least in part and arranged on the top face of said grounding conductor plate.

10. (Currently amended) The automotive radar according to claim 1, wherein the ~~top face edges~~ two of the four sides of said grounding conductor plate are at least in part made up of at least two faces.

11. (Currently amended) The automotive radar according to claim 1, wherein the ~~top face edges~~ two of the four sides of said grounding conductor plate at least in part have a curved face.

12. (Currently amended) The automotive radar according to claim 1, wherein the ~~top face edges~~ two of the four sides of said grounding conductor plate are provided with projections.

***Allowable Subject Matter***

Claims 1-12 and 14-15 are allowed.

Regarding claim 1, none of the prior art either singularly or in combination teaches the claimed "the two of the four sides extending substantially parallel to an imaginary boundary line between the transmitting antenna and the receiving antenna".

The prior art cited teaches a diffraction structure between the transmitter and receiver. However, none of the prior art either singularly or in combination teaches the claimed system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam Alsomiri whose telephone number is 571-272-6970. The examiner can normally be reached on Monday-Friday 8:00-5:00.

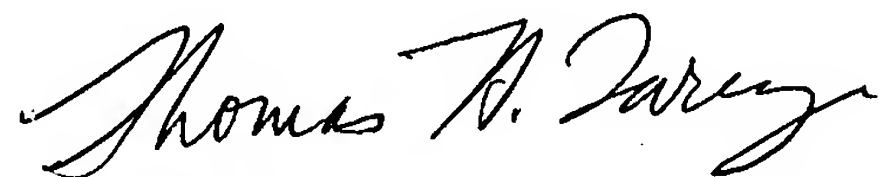
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 703-306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isam Alsomiri



October 13, 2004



THOMAS H. TARCZA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600